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EXAMINER	
FEARER, MARK D	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/763,422	JIN ET AL.	
	Examiner	Art Unit	
	MARK D. FEARER	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 May 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's Request for Continued Examination filed 30 May 2008 is acknowledged.
2. Applicant's Amendment filed 28 April 2008 is acknowledged.
3. Claims 1, 14 and 27 have been amended.
4. Claim 28 is cancelled.
5. Claims 1-27 are pending in the present application.

Continued Examination Under 37 CFR 1.114

6. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 5-7, 11, 14, 18-20, 24 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Belknap et al. (US 5668948 A).

Consider claims 1, 14 and 27. Belknap et al. discloses a system and method of video splitting and allocation for clustered video servers, the method comprising: defining a structure of a network packet ((“Referring again to FIG. 1B a tape storage node 17 includes a tape library controller interface 24 which enables access to multiple tape records contained in a tape library 26. A further interface 28 enables access to other tape libraries via an SCSI bus interconnection. An internal system memory 30 enables a buffering of video data received from either of interfaces 24 or 28, or via DMA data transfer path 32. System memory block 30 may be a portion of a PC 34 which includes software 36 for tape library and file management actions. A switch interface and buffer module 38 (used also in disk storage nodes 16, communication nodes 14, and control nodes 18) enables interconnection between the tape storage node 17 and low latency switch 12. That is, the module 38 is responsible for partitioning a data transfer into packets and adding the header portion to each packet that the switch 12 employs to route the packet. When receiving a packet from the switch 12 the module 38 is responsible for stripping off the header portion before locally buffering or otherwise handling the received data.”) column 6 lines 66-67 and column 7 lines 1-17), a structure of a distributed control file ((“When commands are issued over the control interface to start the streaming of data to an end user, control node 18 selects and activates an appropriate communication node 14 and passes control information indicating to it the

location of the data file segments on the storage nodes 16, 17. The communications node 14 activates the storage nodes 16, 17 that need to be involved and proceeds to communicate with these nodes, via command packets sent through the low latency switch 12, to begin the movement of data.") column 8 lines 47-55), and a structure of a clip file (("Application commands are issued to media streamer 10 over the control interface. When data load commands are issued, the control node breaks the incoming data file into segments (i.e. data blocks) and spreads it across one or more storage nodes. Material density and the number of simultaneous users of the data affect the placement of the data on storage nodes 16, 17. Increasing density and/or simultaneous users implies the use of more storage nodes for capacity and bandwidth.") column 8 lines 38-46); analyzing information of streaming media source files, and processing a client's requirements to obtain a splitting requirement of the streaming media source files into clip files, the splitting requirement being one of clip placement based on clip time and clip placement based on quantity of clip splitting (("A media streamer in accordance with this invention comprises at least one storage node for storing a digital representation of a video presentation. The video presentation requires a time T to present in its entirety, and is stored as a plurality of N data blocks, each data block storing data corresponding approximately to a T/N period of the video presentation. The media streamer further comprises a plurality of communication nodes each having at least one input port and at least one output port; a circuit switch connected between the at least one storage node and input ports of the plurality of communication nodes, the circuit switch selectively coupling one or more of the input ports to the at least one

storage node to enable the digital representation stored thereat to appear at one or more of the output ports; and at least one control node coupled at least to the plurality of communication nodes and to the at least one storage node for enabling any one of the N blocks to appear at any output port of any of the plurality of communication nodes.") column 3 lines 1-18); defining a split files placement strategy and analyzing a clip file allocating requirements, according to the client's requirements (column 8 lines 38-55); analyzing the streaming media source files to construct a splitting task list and relevant control files, according to the client's requirements ((“Control node 18 receives a VS-CONNECT-LIST command with play subcommands indicating that all or part of FILE1, FILE2 and FILE3 are to be played in sequence. Control node 18 determines the maximum data rate of the files and allocates that resource on a communication node 14. The allocated communication node 14 is given the detailed play list and initiates the delivery of the isochronous stream.") column 9 lines 65-67 and column 10 lines 1-5); creating several threads to split the streaming media source files, wherein each thread is responsible for splitting a streaming media source file ((“Each thread works off a queue of requests. The request queue 106 for the output thread 102 contains requests that identify the stream and that points to an associated buffer that needs to be emptied. These requests are arranged in order by a time at which they need to be written to the video output interface. When the output thread 102 empties a buffer, it marks it as empty and invokes the scheduler function 104 to queue the request in an input queue 108 for the stream to the input thread (for the buffer to be filled). The queue 108 for the Input thread 100 is also arranged in order by a time at which buffers need to be filled.")

column 14 lines 26-36 ("Import/Export functions are used to move video data into and out of the media streamer 10. When a video is moved into media streamer 10 (Import) from the client control system, the source of the video data is specified as a file or a device of the client control system. The target of the video data is specified with a unique name within media streamer 10. When a video is moved out of media streamer 10 (Export) to the client control system, the source of the video data is specified by its name within media streamer 10, and the target of the video data is specified as a file or a device of the client control system.") column 19 lines 26-35); and distributing the clip files to relevant storage server nodes, according to the split files placement strategy (("Storage nodes 16, 17 are managed as a heterogeneous group, each with a potentially different bandwidth (stream) capability and physical definition. The VS-CREATE command directs media streamer 10 to allocate storage in one or more storage nodes 16, 17 for a multimedia file and its associated metadata. The VS-CREATE command specifies both the stream density and the maximum number of simultaneous users required.") column 9 lines 48-55).

Consider claims 5 and 18, as applied to claims 1 and 14, respectively. The method of claim 1, wherein the structure of the clip files includes a header of the clip files, an information header of media streams, and the network packet of a media streaming service (column 6 lines 66-67 and column 7 lines 1-17).

Consider claims 6 and 19, as applied to claims 1 and 14, respectively. The method of claim 1, wherein the analyzing of the streaming media source files includes, analyzing a number of logical time units in the media source files, and obtaining time information of a header and a number of media stream for each logic time unit ((“The dynamic allocation is achieved by grouping two or more of the physical switch interfaces, using appropriate routing headers for the switch 12, into one logical switch interface 18a. The video data (on a read, for example) is then split between the two physical interfaces. This is facilitated by striping the data across multiple storage units as described previously. The receiving node combines the video data back into a single logical stream. As an example, in FIG. 18 the switch interface is rated at 2.times. MB/sec. full duplex i.e., .times. MB/sec. in each direction. But video data is usually sent only in one direction (from the storage node into the switch). Therefore only .times. MB/sec. of video bandwidth is delivered from the storage node, even though the node has twice that capability (2.times.). The storage node is under utilized. The switch interface of FIG. 19 dynamically allocates the entire 2.times. MB/sec. bandwidth to transmitting video from the storage node into the switch. The result is increased bandwidth from the node, higher bandwidth from the video server, and a lower cost per video stream.”) column 32 lines 60-67 and column 33 lines 1-11).

Consider claims 7 and 20, as applied to claims 6 and 19, respectively. The method of claim 6, further comprising repeating the analysis until all the logic time units are finished and obtaining a total playback duration, a storage space of the media

source files, and an ID of the media source files based on the structure of the clip file (("A2. File system 166 reads a part of Sk into a cache buffer in file system 166. A3. File system 166 copies the cache buffer into a buffer in video driver 170. Steps A2 and A3 are repeated multiple times. A5. Video driver 170 copies part of Sk to a buffer in video driver 170. A6. Video driver 170 writes the buffer to video port 1 (176). Steps A5 and A6 are repeated multiple times.") column 22 lines 58-67 and column 23 line 1).

Consider claims 11 and 24, as applied to claims 1 and 14, respectively. The method of claim 1, wherein the client's requirements include obtaining and analyzing splitting time requirements (("A media streamer in accordance with this invention comprises at least one storage node for storing a digital representation of a video presentation. The video presentation requires a time T to present in its entirety, and is stored as a plurality of N data blocks, each data block storing data corresponding approximately to a T/N period of the video presentation. The media streamer further comprises a plurality of communication nodes each having at least one input port and at least one output port; a circuit switch connected between the at least one storage node and input ports of the plurality of communication nodes, the circuit switch selectively coupling one or more of the input ports to the at least one storage node to enable the digital representation stored thereat to appear at one or more of the output ports; and at least one control node coupled at least to the plurality of communication nodes and to the at least one storage node for enabling any one of the N blocks to appear at any output port of any of the plurality of communication nodes.") column 3 lines 1-18) and

clip placement strategy ((“Application commands are issued to media streamer 10 over the control interface. When data load commands are issued, the control node breaks the incoming data file into segments (i.e. data blocks) and spreads it across one or more storage nodes. Material density and the number of simultaneous users of the data affect the placement of the data on storage nodes 16, 17. Increasing density and/or simultaneous users implies the use of more storage nodes for capacity and bandwidth.”) column 8 lines 38-46).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 2, 4, 9-10, 12-13, 15, 17, 22-23 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belknap et al. (US 5668948 A) in view of Klemets et al. (US 20030236912 A1).

Consider claims 2 and 15, as applied to claims 1 and 14, respectively. Belknap et al. discloses a system and method of video splitting and allocation for clustered video servers. However, Belknap et al. fails to disclose a method wherein streaming media source files include an Index file and a Session Description Protocol (SDP) file. Klemets et al. discloses a system and method for embedding a streaming media format header within a session description message wherein streaming media source files include an Index file and a Session Description Protocol (SDP) file ((“A multimedia encoder can capture real-time audio and video data and represent the captured data as multiple streams. For example, audio is typically represented as one stream and video as another. Complex files can have multiple streams, some of which may be mutually exclusive. RTSP specifies a mechanism by which a client can ask a server to deliver one or more of the encoded media streams. RTSP also provides a way for the client to obtain information about the contents of the multimedia presentation via SDP message format prior to delivery of the multimedia. SDP enumerates the available media streams

and lists a limited set of auxiliary information (“SDP metadata") that is associated with the collection of streams.”) paragraph 0008 (“For example, some multimedia encoders capture real-time audio and video data and save the content as advanced streaming format (ASF) file (also referred to as active streaming format or advanced system format) as disclosed in U.S. Pat. No. 6,041,345. ASF is a file format specification for streaming multimedia files containing text, graphics, sound, video, and animation. An ASF file has objects including a header object containing information about the file, a data object containing the media streams (i.e., the captured audio and video data), and an optional index object that can help support random access to data within the file. The header object of an ASF file stores information as metadata that is needed by a client to decode and render the captured data. The list of streams and their relationships to each other is also stored in the header object of the ASF file. Some of the metadata items may be mutually exclusive because the metadata items describe the same information using different spoken languages. SDP fails to adequately describe content encoded in ASF.”) paragraph 0010).

Belknap et al. discloses a prior art media streamer with console node enabling same isochronous streams to appear simultaneously at output ports or different streams to appear simultaneously at output ports upon which the claimed invention can be seen as an improvement.

Klemets et al. teaches a prior art comparable device (system and method for embedding a streaming media format header within a session description message)

wherein streaming media source files include an Index file and a Session Description Protocol file.

Thus, the manner of enhancing a particular device (system and method for embedding a streaming media format header within a session description message) was made part of the ordinary capabilities of one skilled in the art based upon the teaching of such improvement in Klemets et al. Accordingly, one of ordinary skill in the art would have been capable of applying this known improvement technique in the same manner to the prior art media streamer with console node enabling same isochronous streams to appear simultaneously at output ports or different streams to appear simultaneously at output ports of Belknap et al. and the results would have been predictable to one of ordinary skill in the art, namely, one skilled in the art would have readily recognized that a multicast system and method capable of multimedia applications can accept files containing session descriptions.

Consider claims 4 and 17, as applied to claims 2 and 15, respectively. Belknap et al., as modified by Klemets et al., discloses a method wherein the SDP file includes a media type, a number of streams included in a video source, a time length of the video source and an ID of a streaming session ((“In addition, the Real-time Streaming Protocol (RTSP), as described in the IETF RFC 2326, the entire disclosure of which is incorporated herein by reference, is an application-level protocol for control of the delivery of data with real-time properties. RTSP provides an extensible framework to enable controlled, on-demand delivery of real-time data, such as audio and video.

Sources of data can include both live data feeds and stored clips. This protocol is intended to control multiple data delivery sessions, provide a means for choosing delivery channels such as user datagram protocol (UDP), multicast UDP and transmission control protocol (TCP), and provide a means for choosing delivery mechanisms based upon RTP. Further, the Session Description Protocol (SDP), as described in the IETF RFC 2327, the entire disclosure of which is incorporated herein by reference, is an application level protocol intended for describing multimedia sessions for the purposes of session announcement, session invitation, and other forms of multimedia session initiation. SDP can be used in conjunction with RTSP to describe and negotiate properties of the multimedia session used for delivery of real-time data.") Klemets et al., paragraphs 0006-0007 ("The invention provides for embedding a streaming media format header within a session description message describing content having a plurality of media streams in a streaming media session. In particular, the invention includes software with data structures for encapsulating and embedding the streaming media format header within the session description message. In addition, the invention software embeds a list of content descriptions attributes storing metadata about the media streams within the session description message. A media description field in the session description message stores a stream attribute identifying a media stream associated with the media description field.") Klemets et al., paragraph 0012).

Consider claims 9 and 22, as applied to claims 2 and 15, respectively. Belknap et al., as modified by Klemets et al., discloses a method wherein the splitting of the media

source file comprises reading the Index file (Klemets et al., paragraph 0010) to obtain a number of clips, and creating several threads according to the obtained number ((“A thread in each storage node 16 that the open request is sent to receive the request and opens the requested stripe file and allocate any needed resources, as well as scheduling input from disk (if the stripe file contains the first few segments).”) Belknap et al., column 17 lines 35-39).

Consider claims 10 and 23, as applied to claims 9 and 22, respectively. Belknap et al., as modified by Klemets et al., discloses a method comprising reading the Index file and obtaining a play task list including several items, and sending each item in the play task list to relevant threads creating a splitting task ((“Three additional commands support automation control systems in the broadcast industry: VS-CONNECT-LIST, VS-PLAY-AT-SIGNAL and VS-RECORD-AT-SIGNAL. VS-CONNECT-LIST allows applications to specify a sequence of play commands in a single command to the subsystem. Media streamer 10 will execute each play command as if it were issued over the control interface but will transition between the delivery of one stream and the next seamlessly.”) Belknap et al., column 9 lines 56-64).

Consider claims 12 and 25, as applied to claims 11 and 24, respectively. Belknap et al., as modified by Klemets et al., discloses a method wherein the clip placement strategy includes a data placement strategy, a hot level of a source video, and an algorithm for allocating clips to the relevant storage server nodes ((“As demand for "hot"

movies grows, media streamer 10, through an MRU-based algorithm, decides to move key movies up into cache. This requires substantial cache memory, but in terms of the ratio of cost to the number of active streams, the high volume that can be supported out of cache lowers the total cost of the media streamer 10.") Belknap et al., column 12 lines 8-13 ("Algorithms that control the placement and distribution of the content across all of the storage media enable delivery of isochronous data to a wide spectrum of bandwidth requirements. Because the delivery of isochronous data is substantially 100% predictable, the algorithms are very much different from the traditional ones used for other segments of the computer industry where caching of user-accessed data is not always predictable.") Belknap et al., column 12 lines 19-26).

Consider claims 13 and 26, as applied to claims 1 and 14, respectively. Belknap et al., as modified by Klemets et al., discloses a method wherein the structure of the network packet complies with a streaming media data message in international real-time transmission protocol, including media type head, serial number, time stamp, synchronous signal, and main media data (("In one embodiment, the streaming media format file header is encoded as a data URL. Typically, URLs refer to content that it stored at a remote location. However, in the case of a data URL, the content is stored inside the URL itself. The specification for the data URL allows arbitrary binary data to be included, if Base64 encoding is used to encode the binary data into a subset of the US-ASCII character set. In addition, the header attribute 504 comprises a type tag identifying the value as representing the streaming media format header. For example,

the data URL allows a multipurpose Internet mail extension (MIME) tag type to be specified. The MIME type is used to identify the type of content that is contained within the data URL. In one embodiment, the MIME type "application/vnd.ms.wms-hdr.asfv1" identifies that a data URL contains a streaming media format file header.") Klemets et al., paragraph 0049 ("where <Stream ID> is replaced with the stream identifier of the stream in the streaming media format file that corresponds to the media that is described in the SDP media description section (e.g., media description 514 or media description 516). The stream attribute 508, 510 establishes a mapping between the stream identifier and the URL in a control attribute of the media description field 514, 516. If the streaming media format is ASF, the stream attribute 508, 510 gives the numerical ASF stream identifier of a stream identified in the ASF header 504. The stream attribute 508, 510 is used to provide a mapping between a media description field and a stream in the streaming media format file. An example of the control attribute and the stream attribute 508, 510 follow.") Klemets et al., paragraph 0056 ("More particularly, given videos v1, v2, . . . , and streams s1, s2, . . . playing these videos, each stream sj plays one video, v(sj), and the time predicted for writing the k-th segment of v(sj) is a linear function where a(sj) depends on the start time and starting segment number, r(sj) is the constant time it takes to play a segment, and t(sj,k) is the scheduled time to play the k-th segment of stream sj.") Belknap et al., column 25 lines 8-18 ("The storage node thread sends a response back to the communication node 14 with the handle (identifier) for the stripe file.") Belknap et al., column 17 lines 40-42 ("Except as indicated below, API functions are processed synchronously, i.e., once a function call is

returned to the caller, the function is completed and no additional processing at media streamer 10 is needed. By configuring the API functions as synchronous operations, additional processing overheads for context switching, asynchronous signaling and feedbacks are avoided. This performance is important in video server applications due to the stringent real-time requirements.") Belknap et al., column 20 lines 56-64).

11. Claims 3, 8, 16 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belknap et al. (US 5668948 A) in view of Klemets et al. (US 20030236912 A1) and in further view of Asit et al. (US 5530557 A).

Consider claims 3 and 16, as applied to claims 2 and 15, respectively. Belknap et al., as modified by Klemets et al., discloses a method wherein an Index File includes a transmitting task list, a file name of a video source, a storage space of the video source, a time length of the video source, and a clip file number of the video source. However, Belknap et al., as modified by Klemets et al., fails to disclose a wherein an Index File includes a hot spot of the video source. Asit et al. discloses online placement of video files determined by a function of the bandwidth to space ratio of each of the storage devices in a server environment comprising a method for determining expected demand (read as hot spots) of videos ((“In a video-on-demand server with multiple disks and video files (e.g. movies), it is necessary to determine which video files are to be placed on which disks. Each disk is limited both by the amount of bandwidth and space, i.e., the number of video data streams that can be played simultaneously and the number of

video files that can be accommodated. The expected demands for different videos are non-uniform. The expected demand for some videos may be low enough that they can be satisfied from one disk or striped set of disks. On the other hand, the expected demand for some videos may be so high that multiple replicas are needed.") column 1 lines 13-24).

Belknap et al., as modified by Klemets et al., discloses a prior art multicast system and method capable of multimedia applications can accept files containing session descriptions upon which the claimed invention can be seen as an improvement.

Asit et al. teaches a prior art comparable device (online placement of video files determined by a function of the bandwidth to space ratio of each of the storage devices in a server environment) comprising a method for determining hot spots.

Thus, the manner of enhancing a particular device (online placement of video files determined by a function of the bandwidth to space ratio of each of the storage devices in a server environment) was made part of the ordinary capabilities of one skilled in the art based upon the teaching of such improvement in Asit et al. Accordingly, one of ordinary skill in the art would have been capable of applying this known improvement technique in the same manner to the prior art multicast system and method capable of multimedia applications can accept files containing session descriptions of Belknap et al., as modified by Klemets et al., and the results would have been predictable to one of ordinary skill in the art, namely, one skilled in the art would have readily recognized a system and method of on-demand streaming.

Consider claims 8 and 21, as applied to claims 1 and 14, respectively. Belknap et al., as modified by Klemets et al. and Asit et al., discloses a method wherein the splitting task list is produced by analyzing the media source files to find a space and time deviation of each clip file and a range of a serial number of the network packet ((“A flowchart of the processing of a command to configure the system to set the expected number of viewers for a video (V) to a new number of viewers (N) is shown in FIGS. 2A-2E. There are two phases to the process. In phase 1, as detailed in FIGS. 2A-2E, the VPM decides if additional replicas are needed. If so, the VPM selects the disks on which the additional replicas are to be created in phase I. The selection is made so as to minimize the deviation of the expected bandwidth-space ratio of the disk from the actual bandwidth-space ratio of the disk. In phase II (detailed in FIGS. 3A-3D), the expected viewers are allocated to the replicas and the number of replicas are consolidated.”) Asit et al., column 3 lines 50-61 (“The encoder 102 creates a streaming media format file that stores real-time media content such as audio and video. For example, the streaming media format may be an advanced streaming format (ASF) such as illustrated in FIG. 2 (also referred to as active streaming format or advanced system format). In FIG. 2, audio and video data are stored as separate media streams in the file in a data field 202. Each stream is assigned a stream identifier such as a number. In one embodiment of ASF, stream identifiers are integer numbers in the range 1 to 63 inclusive. The streaming media format has a header field 204 listing the stream identifiers and information about each stream. For example, the header field 204 may include stream #1 information 206 through stream #M information 208. Each stream

identifier corresponds to one of the media streams. The header field 204 stores metadata for each stream, such as the encoded bit rate and the language (if applicable). The ASF file in FIG. 2 also has an optional index field 210.") Klemets et al., paragraph 0035).

Response to Arguments

12. Applicant's arguments filed 28 April 2008 with respect to claims 1-2, 14-15 and 27 have been considered but are moot in view of the new ground(s) of rejection.

The examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider each of the cited references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage disclosed by the examiner.

Conclusion

13. Any response to this Office Action should be faxed to (571) 273-8300 or mailed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Mark Fearer whose telephone number is (571) 270-1770. The Examiner can normally be reached on Monday-Thursday from 7:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Tonia Dollinger can be reached on (571) 272-4170. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 571-272-4100.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Mark Fearer
/M.D.F./
August 20, 2008

/Tonia LM Dollinger/

Supervisory Patent Examiner, Art Unit 2143